

**HOLLIS SCHOOL BOARD
DECEMBER 7, 2016
MEETING MINUTES**

A regular meeting of the Hollis School Board was conducted on Wednesday, December 7, 2016 at 6:04 p.m. at the Hollis Upper Elementary School.

Chairman Robert Mann presided:

Members of the Board Present: Tammy Fareed, Vice Chairman
Michelle St. John, Secretary
Laurie Miller

Members of the Board Absent: Tom Enright

Also in Attendance: Andrew Corey, Superintendent
Gina Bergskaug, Assistant Superintendent

AGENDA ADJUSTMENTS

Superintendent Corey requested the Board consider postponing formal action on the tentative agreement reached with the Hollis Teachers Association until the January meeting. Doing so would allow the Board and public additional time to review the proposed agreement, and would provide an opportunity for him and the Business Administrator to conduct an additional review of the cost figures.

There being no objection, the requested adjustment was made.

APPROVAL OF MEETING MINUTES

Hollis School Board November 2, 2016

The following amendments were offered:

Page 5, Line 6; delete “not” before “doing”
Page 7, Line 44; replace “Administration” with “Administrator”
Page 8, Line 61; delete “warrant” after “be”

**MOTION BY MEMBER FAREED TO ACCEPT AS AMENDED
MOTION SECONDED BY MEMBER MILLER
MOTION CARRIED
4-0-0**

NOMINATIONS / RESIGNATIONS / CORRESPONDENCE - None

PUBLIC INPUT - None

PRINCIPALS' REPORT

Superintendent Corey noted the information provided with the agenda packet, and commented things are going very well at both of the schools, and the Administration is looking forward to the events scheduled for the coming month.

DISCUSSION

- FY18 Draft Budget Information

Superintendent Corey stated the budget, as currently proposed, meets Budget Committee guidance of \$10,615,973. Healthcare costs and costs associated with the New Hampshire retirement system were areas of increase. As a result of those increases, the Budget Committee increased its guidance by \$114,000.

Superintendent Corey went over some of the larger items that have impacted the budget. Last year costs associated with the Kindergarten program were approved through a Warrant Article whereas in the coming year they are incorporated into the operating budget. The same is the case for the additional 4th grade teaching position, which was approved in the

summer. The expansion of Science at the Hollis Upper Elementary School (HUES) continues to be funded in the proposed budget. FY18 is year 2 of the three-year plan. Expenses include the purchase of additional materials as well as technology to allow for further enhancement of the Project Lead the Way program. At the Hollis Primary School (HPS), para support is being increased in the Library (.3). As Principal Izbicki shared during her initial presentation this year, they are looking to move to the Learning Commons, and begin doing more with regard to Makerspace and support services for students. The slight increase will allow for that expansion. Superintendent Corey stated his belief that same type of expansion will eventually be considered for HUES.

The Maintenance Trust Article needs to be finalized. A portion of that coincides with the efforts of the Energy Study Working Group (ESWG).

The overall increase to the budget is \$214,050.06 or 1.9% over FY17. The Administration is pleased with the proposed budget, and believes it will allow the District to continue to move the two buildings forward. It contains significant funds for professional development, funds to send teachers back to school if they so desire for a Masters or beyond, etc. They are pleased to be able to arrive at guidance, meet each building Principal's top priority, and move curriculum forward.

Vice Chairman Fareed questioned the reductions in the food service line item (\$9,000) and in the special revenue line item (\$60,000). Superintendent Corey stated he would look to the Business Administrator for that explanation and report back.

Chairman Mann remarked he is pleased the District is able to continue to meet Budget Committee guidance. He stated the proposed budget does not represent a status quo approach. There are items in the budget that allow for forward movement within the district allowing the district to reach the educational visions that have been identified.

Superintendent Corey remarked that is absolutely the case. He reiterated one of the big areas is the second year of funding for the science program at HUES. Another is the expansion of the Learning Commons. He commented he would not want to underestimate the value of what the taxpayers have already done by adding the additional 4th grade teacher as that teacher will move with the students. That addresses the primary goal of smaller class sizes, and recognizes that the most influential piece in education is the person at the front of the room.

Superintendent Corey stated there are a number of things that are being looked at with regard to the physical plant. The proposed budget represents a balancing of the physical plant, moving education forward, and bringing forward the teachers' contract.

When asked to specifically address items that were originally requested, but not approved, Superintendent Corey responded each year the Principals are asked to bring forward everything they would want understanding the lists would go through a whittling down process. Environmental Science was looked at. The District presently has that position, which is shared to also deliver math support. The initial request was separating that into two positions. The Administration reviewed staffing levels and is of the belief the District is very much in line with the goals and objectives. As a result of knowing what was taking place on the healthcare side and all of the other pieces, the decision was reached not to make those additions. A custodian position was considered. There is a calculation based on square footage, which the District is currently well within. A concern that was originally expressed was with the custodian allocating time to the SAU office. If contracted services are required at the SAU office that will be addressed.

A STEM Integrationist position was discussed. Superintendent Corey stated his concern with that was sometimes when you bring someone in to do the position you don't get all of the teachers pushing forward with that piece. The Administration felt with Project Lead the Way and the leadership provided by Nicole Tomaselli, Curriculum Administrator, they would rather push the programs into each classroom rather than have a separate individual responsible for that.

There was discussion of a para professional position that would likely lend itself to tasks such as taking care of the lab; don't want to lose instruction time doing that. That position did not make it in the proposed budget, but is one that may come up again in the future.

There was discussion of the Curriculum Administrator position moving from 0.8 to 1.0. That possibility was discussed with Ms. Tomaselli. She is happy with her current schedule as it works well with her family life. As her children grow it is believed she would be happy to return to a full-time basis.

When asked about replacement computer equipment, Superintendent Corey explained the Network Administrator evaluates computer equipment by function. The technology decisions are based on the replacement cycle generated by the Network Administrator.

Superintendent Corey noted the Administration is awaiting the final discussion on maintenance items by the ESWG. The current outline includes a line for Maintenance Expendable Trust (\$252,500). Of that, \$116,000 is the cost of a boiler, which may fall within the work of the ESWG. In that instance, the monies would be removed from the operating budget.

Vice Chairman Fareed questioned the need for handrails and why that line was zeroed out. Superintendent Corey responded as a result of improvements that have taken place, e.g., replacement of the steps in the back of the building, replacement of the handicap ramp in the front of the building, etc., the needs have been reduced.

When asked about the reduction to the line for drains - roof cleaning, Superintendent Corey responded that is something that in one building the custodians do and in the other they do not. The determination was made for that to be done by the custodians in both of the buildings.

Chairman Mann noted the \$50,000 identified for the Rocky Pond water supply, and questioned the intent. Superintendent Corey stated the intent to be addressing leaks in the system. He remarked as the District moves further into the discussion of the maintenance needs and needs identified through the energy study, the hope is that those funds earmarked for the well will remain. There is the need to address that work. The well also supplies the Hollis Brookline Middle School. At one point the COOP School District budget had the same \$50,000 allocation. However, the decision was made to prioritize this end of the system and work our way up the road.

It was noted the Hollis School District, as the owners of the water system, provide water to school and Town facilities as well as some private residences. The District's operating budget includes costs to maintain and operate that water system.

Vice Chairman Fareed questioned the possibility of not only separating costs associated with the water system through line items, but somehow distinguishing that aspect of the budget from the educational aspects when addressing the budget with the Budget Committee and during the District Meeting. Ms. Miller questioned if revenue is generated, e.g., other entities receiving water contributing towards the costs, and was informed it is not. Chairman Mann spoke of the possibility of passing on some of the costs to users of the system. Vice Chairman Fareed commented were there to be a large expense associated with the water system she would not want that to be subject to guidance. Chairman Mann stated he would talk to the Budget Committee and question how they consider that aspect when building guidance.

Vice Chairman Fareed commented a lot of the time there is little expense. However, one thing learned from the consultants is that the pumps are metered through the electric meter at HUES, which makes it very difficult to determine what the efficiencies are for the building.

Mike Leavitt, 125 Moar Hill Road

Commented it would be relatively easy to put in a separate meter for those pumps, which would provide very precise information as to what portion of the electric bill is associated with that function.

Superintendent Corey remarked the last page of the maintenance items includes ranking identification put in by the Principals and their custodial staff. Principal Izbicki is in need of a new intercom, the parking lot became funded because a lot of the structural pieces are in the energy study, and the water supply was funded in both buildings. Principal Fowler needs another piece of the first floor roof done, and the boiler. The items are prioritized and funded accordingly. Discussions continue on the water supply as well as a few other items. There may be some slight changes that come about as further discussion takes place on the maintenance trust. However, he does not believe the estimated dollar amount will increase.

Ms. St. John questioned the reduction to the line for the Science carts, noting it is a top priority, yet the dollars have been zeroed. Ms. Miller commented Round 1 represents the wish list. From there, based on ranking, items are reduced/eliminated. Ms. St. John questioned the probability of the Science curriculum and carts remaining. Superintendent Corey stated those items are funded. The Business Administrator did not want them to be identified outside of technology. The \$12,200 cost is captured under the technology line for Science curriculum.

Superintendent Corey stated the District, through this budget, is well funded. If a decision were reached to eliminate a portion of the maintenance portion of the budget that would not impact guidance as it is addressed in a separate Warrant Article.

Superintendent Corey noted in January budget discussions will focus more on the Maintenance Trust Fund versus the Energy Study. He does not anticipate much in the way of changes in curriculum related items. Chairman Mann stated

the Board would then be gearing up work around the Warrant Articles. He stated the desire for the Board to take a position on the budget and other warrant articles heading into the Public Hearing. He would want to be confident that the Board stands behind what it brings forward to the public for consideration/approval.

When asked if the Board would have the recommendations from the ESWG addressed by that time, Vice Chairman Fareed noted the Board will receive the preliminary recommendations as the next order of business. The intent is to ask the Board to consider postponing the January meeting from the 4th to the 11th so that the final public forum can be conducted during which the Energy Committee will present the final recommendation. The Board should then take a position at its January 11th meeting, immediately following the public forum. Any warrant resulting from this would be due to the State by February 20th. Also discussed in January would be the implementation of any recommendation as well as the funding mechanism. Those decisions would have to be reached in early February. When asked, Chairman Mann stated the Budget Committee has been copied on all materials provided to the Board, and will be kept apprised throughout the process. As part of their warrant work, the Budget Committee will take a position on any proposal.

- Energy Study Working Group; Discussion Regarding Preliminary Committee Recommendations

Vice Chairman Fareed introduced the lead consultant, Charles Niebling, Innovative Natural Resource Solutions LLC.

Mr. Niebling noted adoption of Article 4 at the March 17, 2016 District Annual Meeting. The School Board, responding to the support of the voters for Article 4, created the ESWG. They adopted a charter to guide their deliberations, and ultimately hired him and Dick Henry, HotZero, to assist in the process of evaluating the two buildings for the opportunity to replace the aging heating systems and evaluate building performance and energy efficiency opportunities.

They identified, as did the audits performed on the two school buildings in 2012, a number of fairly significant issues with both buildings with respect to the heating systems and the excessive consumption of both heat and electrical energy.

Mr. Niebling provided a summary of the major issues of the two buildings:

HPS is a structure that is the product of 65 years of evolution. There have been four major waves of expansion in that facility. The original hydronic heat distribution was steam. There is old steam piping that other waves of expansion of the hot water distribution have been added on over the years. The pipes and pumps are old and prone to potential failure going forward. There is a control system that operates on the old DOS platform, and is not particularly useful or functional in terms of controlling energy use (ventilation heating in the building). That needs to be replaced. There are two old oil boilers, and one relatively new oil boiler heating the building. Together the three boilers are significantly oversized relative to the heat load in the building.

There is a 30+ year old underground oil storage tank that will need to be replaced at some point in the next ten years or so. Although it has not failed, and has recently been recertified as completely safe, it is a liability looming on the horizon. They discovered and did a great deal of analysis on the insulating capacity in the walls, windows, and roof of the building and found that the insulating conditions in the building are substandard and well below code in most parts of the building. There is significant window area, and the windows are old and leaky. There is no energy recovery in the air ventilation in the building meaning all of the warm air that is ventilated outside to be replaced by cold air that is heated coming into the building; none of the heat is recaptured from that ventilation. That is a significant source of energy inefficiency. There are opportunities for significant improvements for energy use in lighting, and the electrical infrastructure in the building is quite aged and insufficient to meet modern plug loads and other potential demands on the electrical needs in the building.

HUES has a situation that is quite a bit better. There are old oil boilers and there need for replacement and potential eminent failure was one of the major factors triggering a look at the energy needs in both buildings. There are two underground storage tanks one of which will need to be replaced at some point. There is the ability to monitor carbon dioxide levels in rooms but there is no connection between the monitoring of CO₂ levels, which tend to build up when you have kids in the rooms during the day and decline at night, and the way ventilation is regulated in the building. The result is that the building is probably significantly over ventilated, and there is opportunity for energy savings there. Also discovered were significant gaps between the walls and the roof in much of the construction that took place after 1997. That is a significant potential source of infiltration of cold air into the building in the winter months and warm air into the building in the summer months. There are also opportunities for improvement in lighting in the building.

All of this has been evaluated over the last several months. Quite extensive modeling of ways to address and improve upon these issues was done. They looked at a wide range of heating options as directed by Article 4, including; conventional fossil heating, modern wood heating, both heating systems that were unique to each building as well as a single central district heating plant that would heat both buildings, air source heat pumps, geothermal, heat pump heating,

and also evaluated the use of solar photovoltaic to generate some percentage of electricity needs. They looked extensively at energy efficiency improvements.

Recommendations

The recommendation for HPS is the installation of air source heat pumps, using the circa 2014 oil boiler as a backup heat system connected to the rooftop air ventilation units as a new heating technology for that building. This has the added advantage of providing cool air during times of the year when the building can get quite warm. It also has a significant advantage of being a heating option that can be phased in over a period of time in combination with efficiency improvements in the building; notably insulation of the exterior shell (walls), reduction in window surface area, new windows for the window area that remains, heat recovery in the air ventilation units on the roof to extract heat before ventilation air is exhausted to the outside, the installation of phase change materials, which is a liquid solid state material that is embedded in a fabric that can be placed in the walls or ceiling and acts to absorb heat when the rooms are too hot and give off heat when too cold. It is a new technology, but is believed to be very promising for both facilities. A new control system to replace the old DOS based system and complete replacement of lighting in the building with LED lights, which is a very cost effective investment and one which Eversource provides pretty generous rebates and support of. This is all married to the installation of a likely roof mounted 100kW solar PV array to provide a significant percentage of the electricity demand in the building.

The recommendation for HUES is also the installation of air source heat pumps as well as a new propane boiler array to provide backup heat for the building and some redundancy for heating in the building in the event that the air source heat pumps go down for some reason. That is a relatively inexpensive heating technology right now that is propane boilers. Propane is a very affordably priced fuel currently. Also recommended is that the CO₂ monitors in the rooms be connected to the control system so that the control system can then regulate air ventilation quality and quantity into the rooms and minimize energy expended unnecessarily in ventilation. They recommend some retro commissioning of the ventilation system and controls, which hasn't been done since the control system was first installed in the 1990s. They propose fixing the gap in the leaky walls with foam insulation. Also the installation of phase change materials throughout much of the building, and LED lighting. The HUES improvements would also be married to the installation of a likely roof mounted 100kW solar PV array.

Other options that were looked at in detail included the wood central heating plant for both buildings, dedicated wood-fired heat plants for each school individually, air source heat pumps, oil backup heat for HPS and propane as either a primary or backup for HUES, the building performance measures, and considered roof replacement at HPS. Extensive financial analysis was conducted on all of the options, which ultimately lead to the preferred alternative.

Mr. Niebling spoke of measures that were dismissed and the reasons why. With regard to replacement of the old oil boilers at HPS with new oil boilers, he stated any heating system that continues to rely on distribution of heat through hot water piping will require some fairly significant investment in the hydronic heat distribution in the building. By avoiding any option that utilizes hot water distribution, they avoid that expense; existing piping and pumps can be decommissioned and left in place. Dismissed from consideration were ground source heat pumps principally because of their pretty high capital cost and low return on investment, also dependent on hydronic heat distribution. They did not evaluate in any detail solar hot water primarily because the domestic hot water demand in both buildings is really very low. Solar hot water begins to look like a fairly attractive proposition if you have a large hot water demand like a commercial food processing facility. With regard to insulation of the roof at HPS, the thought was simply to wait until facing replacement.

At HUES, they evaluated oil boilers, and for a slightly different set of reasons they dismissed them. One of the reasons is that the chimney is not to code for oil usage. If the boilers are replaced a new chimney would have to be engineered to vent the flue gasses. The cost of that is not known but believed to be significant. At both facilities they got the sense from the Energy Committee and the spirit and intent behind Article 4 that the District was interested in moving away from fossil fuel. If you make an investment in new oil boilers you are making a 25 or 30-year investment in that fuel. Solar hot air was a potential at HUES because of the south facing, 55 degree roof and the material it was built of. There is a hot air panel there that was in service during the '80s or '90s that is no longer functional.

Mr. Niebling displayed a chart that identified cost, cost savings, net present value, and simple payback associated with the preferred alternative. Total cost is currently **estimated** at \$2,287,082. Both projects will generate significant savings both in heating fuel expenditures and electricity utilization. They have significant 25-year accumulated operating cost savings. They have quite favorable net present values meaning the value recalculated backwards based on a discount rate of 2% of investments made today; the general rule of thumb with net present value is if those numbers are greater than the capital you are spending it is a pretty solid investment. The simple payback is about 11.3 years for both facilities.

Mr. Niebling remarked the marriage of solar PV with air source heat pumps is a very compelling marriage of technologies that he believes will see significant growth in the years to come. Most of the electricity that is consumed in these buildings would be supplied by the PV array that is installed; not all of it, which makes the function and performance of the buildings going forward, assuming the measures are implemented, very nearly net zero, which is a pretty significant achievement. That is really only possible by the combination of the PV and the air source heat pump technologies.

When asked to provide clarification of net present value, Mr. Niebling stated if you take \$2.3 million today and invest it, it will generate a certain rate of return going forward. To get a better sense of the value of the investment you are making today it really has to be discounted by some interest or discount rate. They chose 2%, which is a fairly conservative discount rate for evaluating net present value. You take the investments you are making today, discount them, they generate a savings rate going forward. That savings rate is discounted back to the present. If that number is positive, and especially if it is higher than the capital cost you are investing up front, you are looking at a pretty attractive investment opportunity.

Ms. Miller questioned if the proposal would require replacement of the ventilation systems. Mr. Niebling stated the air source heat pumps will provide ventilation air at HPS. There are ventilation units on the rooftop that will serve as backup heating units. In the event some portion of the school is down, the air source heat pumps aren't functioning properly or if there is a need for supplemental heat during the coldest days of the winter months, the air ventilation units on the roof can be operated using the 2014 boiler as the source of heat for those heat pumps. The ventilation at HUES would not be changed at all. They would simply be connecting the ability to monitor CO₂ in the rooms to the control system to the ventilation system. By doing so you optimize the amount of ventilation you need to keep CO₂ levels at a safe and comfortable level.

Ms. Miller asked for clarification the heat pumps will be individual per classroom, and was informed that would be the case. She questioned how to address large areas like the gyms. Mr. Niebling responded there would potentially be a rooftop unit for the gym. He was uncertain about the cafeteria, and stated he would pose that question to Mr. Henry.

Chairman Mann commented on the annual operating cost savings (\$203,123). The working number that is typically used for operating costs averages \$250,000. Mr. Niebling stated the savings is realized by the reduction in the heat loads in the buildings, the improvements to the shell particularly at HPS, and by the fact that you are generating a good percentage of your own electricity at a significantly lower cost than you would have if purchasing from PSNH. To be able to get a 70-80% reduction in total energy cost is what makes the investment fairly attractive and the payback fairly quick.

Chairman Mann commented it was mentioned that air source heat pumps provide some flexibility in how this would be implemented, and requested additional information. Mr. Niebling stated particularly at HPS where the combination of the improvements to the shell of the building and the installation of heat pumps can be done over a period of maybe 3 summer construction seasons starting probably with the south and east facing (older portions) of the building that face the road and Drury Lane. At HUES, it can probably all be done in one year. It could be phased if so desired.

Were a wood fired heating plant considered for both schools it would really have to all be done at once. Any heating system that relies on hot water distribution in the building, particularly at HPS, would probably have to be done all at once.

Once an initial phase is implemented performance could be evaluated, and, if warranted, modifications could be made for the next phase(s).

Ms. St. John provided the example of the heat pumps; it may be that when the initial rooms are fitted it could be learned that less pumps are needed, which would result in a cost savings. Ms. Miller asked for clarification that individual heat pumps are being used. Mr. Niebling stated individual heat pumps would be used. Vice Chairman Fareed clarified the current plan is to put them in each room. All of the ascertains that have been made are based on computer models that are boilerplate and have been tweaked by the consultants working with the modeler to mimic better the specifics of our particular buildings and usage. It could very well turn out that once the building is insulated, once we implement a section of this plan, that we need fewer units than initially believed. Mr. Niebling added it could turn out that smaller units would be sufficient.

Chairman Mann asked for additional information on the importance of the backup systems. Mr. Niebling responded part of the function is a measure of redundancy in the heating system. He stated it would be extremely unlikely that air source heat pumps would all fail at once. But if for some reason there was an outage in some portion of the building you have a supplemental heat source to provide heat to that portion of the building. In the case of HPS what has been proposed is the use of the 2014 oil boiler that is piped directly to the rooftop air ventilation units, heating the ventilation air, which can be directed to a portion of the building or the entire building to provide backup heat as well as supplemental heat on the

coldest days of the winter. Right now heat pumps don't perform very efficiently when temperatures get below about -10. For those occasional days that we see every winter when temperatures dip below zero and stay below zero during the day, there would be the ability to supplement heat in the building.

In the case of HUES, there is the ability to install propane boilers relatively inexpensively, and do that right away so you've got heat for next winter if you should decide to wait on implementation of the air source heat pumps until the following year to stretch out the expenditures over a period of years.

Chairman Mann asked if there were an eminent failure at HUES, which has been identified already, could measures be taken to address that failure and align it with some of the recommendations. Mr. Niebling responded that could occur. Were there a boiler failure at HUES and the remedy was to install new highly efficient super clean propane boilers, that is a component of what is being recommended. The District would be making an expenditure today that wouldn't have to be made the next year or the year after.

Vice Chairman Fareed asked for confirmation a propane boiler doesn't need a chimney replacement. Mr. Niebling responded they can be direct vented because they are so efficient the temperature of the flue gasses is low enough that they do not need a stack to vent.

Next Steps

Mr. Niebling stated they would continue to refine the analysis/modeling. Working with the ESWG and the Superintendent, they will look at different strategies to implement the recommendations in the most cost-effective and least disruptive way. They will do some investigation into different approaches to implement the project. They will prepare for the public form on January 11th and the decision by the School Board. If additional help is needed for preparation for the District meeting that will be available. Any public information materials needed, outreach, etc. will be available.

DELIBERATIONS

There being no objection, the Board went out of the regular order of business to take up the last item under Deliberations.

- To see what action the Board will take regarding Authorization to Expend up to \$2,500 for the Purchase of Phase Change Material (PCM) for a Pilot Project Related to the ESWG

Vice Chairman Fareed stated the PCM looks like sheets of crimped plastic material finely stuffed and shaped like a ketchup package. Inside is a proprietary mix of salt, clay, and water. The proprietor of this material claims that it is adjustable to very narrow performance requirements wherein it absorbs heat where you don't want it and releases it where you do.

It has been utilized at SAU17. The claim there is that it is saving them an enormous amount on energy use. The proposal from the consultants is that the District should use it in the buildings as a layer in the ceilings and some of the walls to act as sort of a smart insulation. There has been skepticism on the part of some members of the ESWG. There is the desire to see the results before investing a significant amount.

Mr. Niebling stated the concept of PCM has been around a long time, but this particular technology is new. Vice Chairman Fareed stated the District could do a pilot study immediately in one room in one of our buildings to see if it really performs the way it promises to. Mr. Niebling stated the idea to be to choose two rooms that have relatively similar physical features and usage; put temperature monitors in both rooms, put the PCM in one, and monitor the performance of the two rooms.

Chairman Mann questioned how it could be implemented without disturbing operations. Superintendent Corey questioned, with the ability for this to potentially become a solution for two buildings, has the vendor been asked to pilot the material for us. Mr. Niebling responded that is a very good question and he is aware Mr. Henry has had extensive conversations with the individual who worked with SAU17 as well as the school in Plainfield that also did this, and has had a good experience with it. He stated he was unsure of the answer, but would speak with Mr. Henry, and provide a response.

When asked, Mr. Niebling stated the thought was to pilot classrooms at HUES because there aren't other complicating variables that might interfere with the ability to judge the performance of the product. He stated he would have to defer to Mr. Henry on his thinking of where to implement the pilot. Ms. Miller stated her opinion it should be one of the rooms that

shows the most significant change in temperature over the course of a day, which would be at HPS. When asked how long the pilot would go on, Mr. Niebling stated it would be the winter months and would be, in part, what would be informing the decision of what is presented to the voters in March.

Vice Chairman Fareed stated her opinion what was promised to the voters is a study, and one of the aspects of the study is efficiencies. The ESWG has gone back and forth with the consultants on this material because it sounds fantastic and the two SAUs that have utilized it are pleased with the performance. At the same time, it is not commonly available everywhere, and the District does not have data from a large sample. She suggested it to be an appropriate expenditure of some of the funding from Warrant Article 4.

Ms. St. John stated her opinion having the additional data would illustrate to the voters that the District is not treading into this lightly. She stated her support of the pilot. Ms. Miller stated her support of the pilot.

Chairman Mann stated he has seen some of the data on how this material works. He believes a pilot would dovetail nicely with some of the other elements being reviewed as part of the study. He is supportive of the pilot. He stated a desire to hear more from the Superintendent on how and when such a pilot would be implemented.

Mr. Niebling stated he would request Mr. Henry prepare a proposal/prospectus on how he would envision implementing the pilot. He will also look into the possibility of a vendor being willing to conduct the pilot at no cost to the District with the expectation of the opportunity to compete favorably should it be part of the project approved in March.

Vice Chairman Fareed commented she would also be acceptable to a pilot being done as part of Phase II of the project. Ms. Miller stated her impression the consultants were using the assumption of having made the energy efficiency improvements in order to size the heating capabilities, and was told that is correct. She questioned how the pilot could be postponed. Mr. Niebling stated they used a probably higher cost per heat pump unit than is believed to be necessary to keep the buildings and rooms comfortable. If there is some real data on the use of the combination with PCM in the rooms that shows that you can install a 60,000 BTU unit instead of an 80,000 BTU unit, the unit would be less expensive and you would use less energy to keep the room comfortable.

Ms. St. John commented that is what she remembered Mr. Henry saying as to why it was important to do it now. Ms. Miller stated the only changes would be the PCM.

Mr. Niebling stated he would request Mr. Henry prepare a quick summary on how he would envision that being implemented, the reasons for it, and what is hoped to be learned from it. That information will be sent to the Board and Superintendent. The Superintendent can then determine whether it is possible to do in a room during winter break, February vacation, etc.

**MOTION BY MEMBER FAREED TO AUTHORIZE THE EXPENDITURE OF AN AMOUNT NOT TO EXCEED TWO THOUSAND FIVE HUNDRED DOLLARS (\$2,500) FOR THE PURCHASE OF PHASE CHANGE MATERIAL (PCM) FOR A PILOT PROJECT RELATED TO THE ENERGY STUDY WORKING GROUP. SOURCE OF FUNDING IS THE APPROPRIATION APPROVED THROUGH THE PASSAGE OF WARRANT ARTICLE #4 AT THE DISTRICT ANNUAL MEETING CONDUCTED ON MARCH 17, 2016
MOTION SECONDED BY MEMBER MILLER**

ON THE QUESTION

Chairman Mann reiterated he would support the motion with the caveat that the Superintendent work with the ESWG to find a suitable location and time that does not interfere with the operations of the schools.

**MOTION CARRIED
4-0-0**

The Board returned to the regular order of business.

- To see what action the Board will take regarding Policy GAA - Job Descriptions; 3rd Reading
First Reading: 10-5-16
Second Reading: 11-2-16
Given its third reading:

MOTION BY MEMBER FAREED TO ACCEPT THE THIRD READING AND ADOPT POLICY GAA – JOB DESCRIPTIONS

MOTION SECONDED BY MEMBER MILLER

ON THE QUESTION

Vice Chairman Fareed noted the policy language has not changed.

MOTION CARRIED

4-0-0

- To see what action the Board will take regarding Policy IGBG - Homebound Instruction (replaces IHBF); 3rd Reading
First Reading: 10-5-16 (as amended)
Second Reading: 11-2-16

Given its third reading:

**MOTION BY MEMBER FAREED TO ACCEPT THE THIRD READING AND ADOPT POLICY IGBG – HOMEBOUND INSTRUCTION
MOTION SECONDED BY MEMBER MILLER**

ON THE QUESTION

Vice Chairman Fareed noted the policy was crafted by the Director of Student Services. It has been adopted across SAU41, is critically important that it be worded as presented, and has not been changed since the last reading.

MOTION CARRIED

4-0-0

- To see what action the Board will take regarding the ESWG Invoices

The invoice covers professional consulting services for the period of November, 2016. An itemized detail was included as part of the [agenda](#) packet.

The invoice identified the following:

Charles R. Niebling, Innovative Natural Resource Solutions LLC	\$ 2,146.50
D. Dickinson Henry, Hot Zero (subcontractor)	\$ 8,421.33
Resilient Buildings Group (subcontractor)	\$ 825.00
John F. Penney Consulting Services (subcontractor)	<u>\$ 1,592.50</u>

Total invoice: \$12,985.33

**MOTION BY MEMBER FAREED TO APPROVE THE INVOICE RECEIVED FROM INNOVATIVE NATURAL RESOURCE SOLUTIONS LLC IN THE AMOUNT OF TWELVE THOUSAND NINE HUNDRED EIGHTY FIVE DOLLARS AND THIRTY THREE CENTS (\$12,985.33) FOR PROFESSIONAL CONSULTING SERVICES PROVIDED IN THE MONTH OF NOVEMBER AND RELATED TO THE HOLLIS SCHOOLS ENERGY STUDY. SOURCE OF FUNDING IS THE APPROPRIATION APPROVED THROUGH THE PASSAGE OF WARRANT ARTICLE #4 AT THE DISTRICT ANNUAL MEETING CONDUCTED ON MARCH 17, 2016
MOTION SECONDED BY MEMBER MILLER**

ON THE QUESTION

Ms. St. John noted the budget tracking Excel file that was provided indicates \$8,000 remaining in the contracted amount of \$79,500. She requested confirmation there is an additional \$20,500 remaining in the amount approved through Warrant Article 4. Chairman Mann stated that to be correct.

Vice Chairman Fareed commented Mr. Henry was recently onsite speaking with Ed Hinkley, Maintenance Supervisor, regarding the gaps in the walls of HUES. The walls in the building don't quite meet the ceiling. There are hundreds of linear feet where steel girders meet each other between the roof and the wall and there is a gap between the two. It was also discovered, through review of the drawings, that there is a 2"+ gap between the two layers of wall throughout the building. Mr. Henry is looking into discovering if this is an intentional design feature that needs to be retained. Nothing that has been located to date indicates that this is something that is a positive for the building. What it has taken to make those discoveries and model those discoveries, to determine what affect they have on the current operation of the

buildings and what affect repairing these gaps will have has taken a piece of time that no one had anticipated at the start of the project because no one knew the gaps existed.

Chairman Mann stated there to be a request to increase the not to exceed contracted amount with the consultants. Vice Chairman Fareed stated her belief that request would be addressed at the January meeting.

Vice Chairman Fareed noted the budget and the contract that went along with it for the sub-contractors, has come in under budget.

**MOTION CARRIED
4-0-0**

- To see what action the Board will take regarding a Date for the Annual School District Meeting

Superintendent Corey stated the Administration is proposing March 7th as the date of the Annual Meeting with a snow date of March 9th. With the Brookline School District going to SB2, their meeting date is March 14th as it is all-day voting. What is being proposed for the COOP School District is that they follow the Hollis School District on the 13th and the 16th for their snow date.

**MOTION BY MEMBER FAREED TO SET THE DATE OF THE ANNUAL SCHOOL DISTRICT MEETING AS TUESDAY, MARCH 7, 2017 AND THE SNOW DATE AS THURSDAY, MARCH 9, 2017
MOTION SECONDED BY MEMBER MILLER**

ON THE QUESTION

Chairman Mann questioned if input on the dates was provided by the Budget Committee. Superintendent Corey stated his belief the proposed dates are those that were originally in the Budget Committee's calendar. That can be verified. He commented one of the things the Administration has to coordinate is the aspect of multiple districts setting dates, and meeting all of the legal requirements.

**MOTION CARRIED
4-0-0**

Ms. Miller questioned whether it is the Board's desire to change the January meeting date from the 4th to the 11th. Superintendent Corey stated the desire to conduct the public forum on the recommendations of the ESWG to be immediately followed by the regular Board meeting. The board agenda would be limited to pressing business. Vice Chairman Fareed commented originally the third public forum was scheduled for December on the assumption that a bonding deadline that was in December would be of importance to the decision reached. Superintendent Corey has determined the December deadline is not relevant to the matter at hand. There is the desire to utilize the additional time to gather additional data points, etc. In addition, by having the discussion that occurred this evening and conducting the final forum in January, the public has additional time to review the material, pose any questions, etc.

It was the consensus of the Board to set the January meeting date as January 11, 2017.

UPDATE

- Start Time Committee

Ms. Miller stated the Committee met this past month. After the original proposals were discussed with the different school boards, a few members of the Committee took another look at the proposals with Hollis Transportation.

They came up with another proposal that would have the Middle School and the High School starting at 8:00 a.m., the Middle School ending at 2:45 p.m. and the High School ending at 2:55 p.m. It would cut 15 minutes off the school day. The elementary schools would start at 8:45 a.m. and go to 3:30 p.m. (cuts 15 minutes off the school day). One of the concerns expressed by the elementary schools was students getting out at a time that, during the winter months, would be dark.

At this time, the Committee has been reassigned the task to review what steps need to be taken. It is likely a public forum would be conducted to seek feedback from the public. It could be that the proposed start time may result in difficulties for families. There is a concern with whether the District would be able to offer before-school services of the magnitude that could be needed.

Superintendent Corey commented it is nice progress, but at the same time has brought up another set of questions.

Vice Chairman Fareed questioned if the start time were to be delayed at the high school, would the students not simply stay up that much later. Ms. Miller responded it doesn't have to do with when you sleep it has to do with when you are sleeping. Studies have shown you children going to bed at 6:00 p.m. will not get good sleep. Sleeping between the hours of 10:00 p.m. and 7:00 a.m. will be better sleep than 9:00 p.m. to 6:00 a.m.

Ms. St. John commented on the social media flurry on the topic. She questioned how it affects sports and sports fields and how it cascades down to the elementary schools or the club sports that utilize the fields. Superintendent Corey responded it becomes an issue because there are only so many practice hours. It coincides with the COOP School District's discussion around another rectangular field.

Superintendent Corey noted data received indicating Portsmouth is making the move and changing their start time, and Oyster River is in the process. Portsmouth is one town/one set of buses and transportation time is different. Oyster River would be more similar to SAU41. A few years ago the districts in Amherst, Mt. Vernon, etc. looked at it and found it was not feasible.

Superintendent Corey stated there is a long way to go, and the intent is simply to ensure everyone is participating in the process so that when reaching the point of discussing a potential solution all parties are well informed.

Ms. St. John noted, as a rural town, Hollis has a small amount of sidewalks and no lighting. Darkness is an issue. Ms. Miller noted Hollis Transportation did look at how long drop-off was and worked backwards, e.g., determined the latest time a student could be dropped off and identified what that would mean in terms of what time students would have to be picked up at school. That 3:30 p.m. timeframe does fit with their window. Ms. St. John stated her disagreement. She noted although she resides less than a mile from the school, her children are the last ones dropped off and have to walk 1/3 of a mile to their home in what could be darkness.

Superintendent Corey stated that to be a big concern that the Committee is looking at. He stated the desire for the community to be aware of the intent to conduct public forums to gather feedback. At the same time, this is the closest the Committee has come to a transportation solution; not necessarily the ultimate solution.

When asked when a recommendation could be put forth, Ms. Miller stated her belief the next steps would be for the Committee to meet in January, identify the details of before and after school care, and take another look at timing. Public forums would begin in either January or February. When asked if the Committee was looking to prepare a proposal for March meeting, Ms. Miller stated her belief because there is not believed to be a financial impact, the work could be done asynchronously.

Superintendent Corey remarked he hesitates to place a timeframe on a final recommendation as it would be dependent on the feedback received.

Ms. St. John questioned how a final decision is reached. Superintendent Corey responded the final decision will come back to the various boards where consensus will be sought. It may be that some time is utilized at the February SAU41 Governing Board meeting to discuss the issue. At that point, a decision could be made as to how to proceed.

ADJOURNMENT

MOTION BY MEMBER FAREED TO ADJOURN

MOTION SECONDED BY MEMBER MILLER

MOTION CARRIED

4-0-0

The December 7, 2016 meeting of the Hollis School Board was adjourned at 8:07 p.m.

Date _____ Signed _____